

## **REMARKS**

Claims 1, 3-9, and 11-18 are pending in the application.

Claims 1, 3-9, and 11-17 are currently amended; claims 2 and 10 are canceled; and new claim 18 is added. Applicants respectfully submit that no new matter is added to currently amended claims 1, 3-9, and 11-17 or to new claim 18.

Claims 1, 4, 6-7, 9, and 12-17 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 6,055,513 to Katz, et al., hereinafter, Katz.

Claims 2-3, 5, 8, and 10-11 stand rejected under 35 U.S.C. §103(a) as unpatentable over Katz in view of U.S. Patent No. 6,125,339 to Reiser.

Applicants respectfully traverse the rejections based on the following discussion.

### **I. The Prior Art Rejections**

#### **A. The 35 U.S.C. 102(b) Rejection as Anticipated by Katz**

##### **1. The Katz Disclosure**

Katz discloses a method that provides offers of an item constituting a good or a service in the form of an offer for purchase of the item to potential customers as users of the system, utilizing an electronic communications device, such as a telephone, videophone or computer, comprising the steps of, first, establishing communication via the electronic communications device between the user and the system for purposes of a primary transaction, second, obtaining primary transaction data with respect to the transaction, including determining the identity of the prospective customer, third, obtaining at least a second data element relating to the user for the upsell determination, fourth, utilizing at least in part the primary transaction data and the second data element and determining at least one good or service item for prospective upsell to the prospective customer, and fifth, offering the item to the prospective customer. (col. 8, lines 45-62, which is cited by the Office Action).

Katz also discloses that primary transaction data may include data relating to or reflecting the initial or primary contact from the customer to the system. In operation, one or more databases may be accessed, either in parallel or in series, to collect and assemble input

information from the system to determine the upsell or intelligent product selection. Alternatively, nonautomatic entry may be utilized, such as where the customer or operator effects data entry. (col. 8, line 67 to col. 9, line 5 and col. 9, lines 41 and 42, which are cited by the Office Action).

Katz further discloses that the system for identifying the potential proffer utilizes the input information so as to generate one or more outputs comprising potential proffers to the user. Various selection methodologies are available, including historical selection criteria keying the proffer to what has effectively resulted in sales or successful transactions in the past, or proffers based upon demographic profile or other inputs as a designator for a potential upsell. In yet other selection methodologies, theme sales may be utilized such as where further goods are required to complete a set, such as a formal ware set. (col. 10, lines 46-55, which is cited by the Office Action).

## **2. Arguments**

Currently amended, independent claims 1 and 17 recite in relevant part,

"A method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... :

storing belief values and an integrated belief profile of a customer,

wherein said belief values are based on activities of said customer across said multiple channels, and

wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value;

...

updating said integrated belief profile, based on said stored belief values of said customer;

...

wherein channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing."

Similarly, currently amended claim 9 recites in relevant part.

"A computer system for implementing a method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... :

a storage device for storing belief values and an integrated belief profile of a customer, wherein said belief values are based on activities of said customer across said multiple channels, and

wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value;

...

a processor adapted to:

...

update said integrated belief profile, based on said stored belief values of said customer;

...

wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing."

Katz merely discloses a method of offering an upsell second item to a potential customer, who has inquired about purchasing a first item, and the method of determining the upsell second item being based on transaction data related to the first item. Katz also discloses that the potential customer may access the system implementing the methods via an electronic communications device, such as a telephone, videophone or computer.

In contrast, the present invention obtains belief values of customers across multiple channels to obtain an integrated belief profile for each customer.

Applicants respectfully submit that the multiple channels, disclosed by the present invention, are improperly analogized to the electronic communication devices of Katz because the multiple channels of the present invention are described as "includ[ing] media through which

a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing." Although some channels of the present invention utilize electronic communication devices, others, e.g., stores, catalogs, and direct marketing, do not. Furthermore, to one of ordinary skill in the art, a channel is defined more broadly than the electronic communication devices of Katz and includes such potential channels as retail stores, print catalogs, and direct sales.

Furthermore, Katz does not use a theory of evidence based on belief functions, e.g., the Dempster-Shafer theory, as does the present invention. In addition, Katz does not disclose, teach or suggest storing or using belief functions, based on activities of said customer across multiple channels. As is well known in the art, Dempster-Shafer theory is a generalization of the Bayesian theory of subjective probability. In the formalism of Dempster-Shafer theory, a degree of belief, also referred to as mass, is represented as a belief function rather than a Bayesian probability function.

Nowhere does Katz store belief values of a belief function, based on activities of the customer across multiple channels, and an integrated belief profile for each customer that is updated when a request by the customer is received. Instead, Katz merely discloses a method of offering an upsell second item to a potential customer, who has inquired about purchasing a first item.

For at least the reasons outlined above, Applicants respectfully submit that Katz does not disclose, teach or suggest the present invention's features of "A method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... : storing belief values and an integrated belief profile of a customer, wherein said belief values are based on activities of said customer across said multiple channels, and wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value; ... updating said integrated belief profile, based on said stored belief values of said customer; ... wherein channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing", as recited in currently amended, independent claims 1 and 17, and " A

computer system for implementing a method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... : a storage device for storing belief values and an integrated belief profile of a customer, wherein said belief values are based on activities of said customer across said multiple channels, and wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value; ... a processor adapted to: ... update said integrated belief profile, based on said stored belief values of said customer; ... wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing", as recited in currently amended, independent claim 9. Accordingly, Katz does not anticipate the subject matter of currently amended, independent claims 1, 9, and 17, and currently amended, dependent claims 4, 6, 7, 12-16 under 35 U.S.C. §102 (b). Withdrawal of the rejection of claims 1, 4, 6, 7, 9, and 12-17 under 35 U.S.C. §102 (b) as anticipated by Katz is respectfully solicited.

**B. The 35 U.S.C. 103(a) Rejection as Unpatentable over Katz and Reiser**

**1. The Reiser Disclosure**

Reiser discloses a method of automatically learning belief functions, thus providing the ability to determine erroneous information sources, inappropriate information combinations, and optimal information granularities, along with enhances system performance. Reiser's invention may be embodied in a method of training belief functions, including the steps of gathering information representative of an object or event; creating a set of basic probability assignments based on said set of information; creating combinations of said basic probability assignments; measuring an error present in said basic probability assignments and said combinations of said basic probability assignments based on said error; and modifying said basic probability assignments and said combinations of basic probability assignments with said updates. (col. 2, lines 6-23, which is cited by the Office Action).

## **2. Arguments**

Currently amended, independent claim 1 recites in relevant part,

"A method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... :

storing belief values and an integrated belief profile of a customer,

wherein said belief values are based on activities of said customer across said multiple channels, and

wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value;

...

updating said integrated belief profile, based on said stored belief values of said customer;

...

wherein channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing."

Similarly, currently amended claim 9 recites in relevant part.

"A computer system for implementing a method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... :

a storage device for storing belief values and an integrated belief profile of a customer,

wherein said belief values are based on activities of said customer across said multiple channels, and

wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value;

...

a processor adapted to:

...

update said integrated belief profile, based on said stored belief values of said customer;

...

wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing."

Resier merely discloses that the ability to adjust belief functions used in a system would allow the system to "learn" from the information provided by information sources and the ability of the system to automatically update belief functions would allow the system to determine erroneous information sources, inappropriate information combinations, and optimal information granularities (col. 1, line 61 to col. 2, line 1).

Nowhere does Reiser disclose, teach or suggest using his system for targeting customers across multiple channels as does the present invention. In fact, nowhere does Reiser disclose, teach or suggest his invention being applied to commerce or obtaining information from multiple channels including media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing, as does the present invention. Instead, Resier merely discloses that the ability to adjust belief functions used in a system would allow the system to "learn" from the information provided by information sources and the ability of the system to automatically update belief functions would allow the system to determine erroneous information sources, inappropriate information combinations, and optimal information granularities.

Therefore, Applicants respectfully assert that Reiser is an improper reference with which to assert a *prima facie* case of obviousness under 35 U.S.C. §103(a) because nowhere is there a suggestion or motivation to combine the invention of Reiser with the method and apparatus of Katz for intelligent selection of goods and services in telephonic and electronic commerce (Katz, Title).

Furthermore, nowhere does Resier disclose, teach or suggest the present invention's features of "A method for automatically targeting customers across multiple channels using a

theory of evidence based on belief functions ... : storing belief values and an integrated belief profile of a customer, wherein said belief values are based on activities of said customer across said multiple channels, and wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value; ... updating said integrated belief profile, based on said stored belief values of said customer; ... wherein channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing", as recited in currently amended, independent claim 1, and " A computer system for implementing a method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... : a storage device for storing belief values and an integrated belief profile of a customer, wherein said belief values are based on activities of said customer across said multiple channels, and wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value; ... a processor adapted to: ... update said integrated belief profile, based on said stored belief values of said customer; ... wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing", as recited in currently amended, independent claim 9.

For at least the reasons outlined above, Applicants respectfully submit that Katz and Reiser, either individually or in combination, do not disclose, teach or suggest the present invention's features of " A method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... : storing belief values and an integrated belief profile of a customer, wherein said belief values are based on activities of said customer across said multiple channels, and wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value; ... updating said integrated belief profile, based on said stored belief values of said customer; ... wherein channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a



telephone, a catalog, an on-line personal computer, and direct marketing", as recited in currently amended, independent claim 1, and " A computer system for implementing a method for automatically targeting customers across multiple channels using a theory of evidence based on belief functions ... : a storage device for storing belief values and an integrated belief profile of a customer, wherein said belief values are based on activities of said customer across said multiple channels, and wherein said integrated belief profile is derived from profile attributes for each of said multiple channels for said customer, each of said profile attributes being associated with a belief value; ... a processor adapted to: ... update said integrated belief profile, based on said stored belief values of said customer; ... wherein said multiple channels include media through which a merchant reaches and interfaces with customers, said channels including any of a store, a telephone, a catalog, an on-line personal computer, and direct marketing", as recited in currently amended, independent claim 9. Accordingly, Katz and Resier, either individually or in combination, fail to render obvious the subject matter of currently amended, independent claims 1 and 9, and currently amended, dependent claims 3, 5-8, and 11. The rejection of canceled claims 2 and 10 is moot. Withdrawal of the rejection of claims 2, 3, 5, 8, 10, and 11 under 35 U.S.C. §103(a) as unpatentable over Katz and further in view of Reiser is respectfully solicited.

## II. Formal Matters and Conclusion

Claims 1, 3-9, and 11-18 are pending in the application.

With respect to the rejections of the claims over the prior art, Applicants respectfully argue that the currently amended claims are distinguishable over the prior art of record. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the prior art rejections of the claims.

In view of the foregoing, Applicants submit that claims 1, 3-9, and 11-18, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest time possible.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0441.

Respectfully submitted,

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